



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ed for, therefore, only by supposing its solidity to be preserved by the enormous pressure to which, at considerable depths, the mass is subjected. The author then offers an explanation of the phenomena of volcanos on the supposition that a portion of matter more fusible than the general mass of the globe exists in a state of fusion in subterranean reservoirs, forming so many subterranean lakes of determinate extent; in some cases originally distinct; in others, communicating with adjoining lakes, by more or less obstructed channels; a theory which will also account for all the obscure geological elevations, except perhaps the earliest, as being produced by a simultaneous action of a fluid pressure on every portion of the lower part of a solid mass of definite extent. The author considers this harmony in his general views with the results of analytical investigation as constituting for them a strong claim to the attention of geologists.

Another important conclusion which the author deduced from his researches is, that if the interior temperature of the earth be due to its primitive heat, pressure must be effective in promoting solidification of masses at high temperatures.

2. The following paper was read:—"Contributions to Terrestrial Magnetism," No. III. By Lieut.-Colonel Edward Sabine, R.A., F.R.S.

In this memoir, the author gives a detailed account of the observations on the magnetic intensity made at sea by the officers of the *Erebus* and the *Terror* on their passage from England to Kerguelen's Land; the unreduced observations transmitted to the Admiralty by the Commanders of these ships, Captain James Ross and Captain Crozier, having been placed in his hands for that purpose.

The first part of the paper relates to the observations made between England and the Cape of Good Hope; and the second, to those made between the Cape and Kerguelen's Land. These observations, made at various stations, are given in the form of tables; and their accordance with the isodynamic lines drawn from Mr. Dunlop's observations, contained in the first number of the author's contributions on this subject, is pointed out.

January 27, 1842.

SIR JOHN WILLIAM LUBBOCK, Bart., V.P. and Treas.,
in the Chair.

Samuel Peace Pratt, Esq., was balloted for, and duly elected a Fellow of the Society.

The following papers were read, viz.—

1. "Barometrical Observations made at Yarmouth, Norfolk, on